

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>LA0050</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 01/07151</b>	International filing date (day/month/year) <b>05/03/2001</b>	(Earliest) Priority Date (day/month/year) <b>10/03/2000</b>
Applicant <b>BRISTOL-MYERS SQUIBB CO.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**CYCLOPROPYL-FUSED PYRROLIDINE-BASED INHIBITORS OF DIPEPTIDYL IV, PROCESSES FOR THEIR PREPARATION, AND THEIR USE**

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

# INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 01/07151

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D209/52 A61K31/403 A61P3/04 A61P3/06 A61P3/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 011 155 A (VILLHAUER EDWIN BERNARD) 4 January 2000 (2000-01-04) abstract; claims; examples ---	1-7, 11, 23, 24
Y	WO 99 47545 A (WANNAMAKER MARION W; BEMIS GUY W (US); MURCKO MARK A (US); VERTEX) 23 September 1999 (1999-09-23) page 9, formula I; page 26, especially lines 18-22; page 97, compounds 23d, 23h claims 1,6,18,19,23 ---	1-7, 11, 23, 24
A	WO 99 67279 A (SCHMIDT JOERN; GLUND KONRAD (DE); DEMUTH HANS ULRICH (DE); HOFFMAN) 29 December 1999 (1999-12-29) page 11 -page 17; claims 1,2,8-13 --- -/--	1, 11-13, 22-24



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

16 October 2001

Date of mailing of the international search report

23/10/2001

Name and mailing address of the ISA

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Authorized officer

Hass, C

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 379 785 A (WEYER RUDI ET AL) 12 April 1983 (1983-04-12) cited in the application claims 1,5,6 ---	1,11,23, 24
A	EP 0 219 782 A (HOECHST AG) 29 April 1987 (1987-04-29) page 1, formula (I); page 3, substructure K; page 16, line 33 to page 17, line 6 claims 1,2 ---	1,11,23
A	DE 33 24 263 A (HOECHST AG) 17 January 1985 (1985-01-17) claims 1,19,20 ---	1,11
A	DE 39 26 606 A (HOECHST AG) 14 February 1991 (1991-02-14) page 2, formula (I); page 3, substructure (K); page 6, lines 62-66 ---	1
A	US 4 254 057 A (DAY JANET A ET AL) 3 March 1981 (1981-03-03) column 2, line 26 - line 38 ---	1
A	EP 0 007 652 A (SHELL INT RESEARCH) 6 February 1980 (1980-02-06) claim 1 ---	1
A	HANESSIAN S ET AL: "Probing the Importance of Spacial and Conformational Domains in Captopril Analogs for Angiotensin Converting Enzyme Activity" BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, OXFORD, GB, vol. 8, no. 16, 18 August 1998 (1998-08-18), pages 2123-2128, XP004137231 ISSN: 0960-894X the whole document ---	1
A	TVEREZOVSKY V V ET AL: "Synthesis of (2S, 3R, 4S)-3,4-Methanoproline and Analogues by Cyclopropylidene Insertion" TETRAHEDRON, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 53, no. 43, 27 October 1997 (1997-10-27), pages 14773-14792, XP004106307 ISSN: 0040-4020 the whole document ---	1
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>SAGNARD I ET AL: "Enantioselective Synthesis of Cyclopropane alpha-Amino Acids: Synthesis of N-Boc-cis-(2S,3R,4S)-3,4-Methanoproline and N-Boc-(2S,3R,4S)-3,4-Methanoglutamic Acid"</p> <p>TETRAHEDRON LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 36, no. 18, 1 May 1995 (1995-05-01), pages 3149-3152, XP004028212 ISSN: 0040-4039 the whole document</p> <p>---</p>	1
A	<p>WO 99 26659 A (HOOVER DENNIS JAY; TREADWAY JUDITH LEE (US); HULIN BERNARD (US); P) 3 June 1999 (1999-06-03) cited in the application claims 1,6,7</p> <p>---</p>	12-14, 22-24
A	<p>US 5 998 463 A (HULIN BERNARD ET AL) 7 December 1999 (1999-12-07) cited in the application claims 1,22,23</p> <p>-----</p>	12-14, 22,23

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 01/07151

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 23, 24 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/07151

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Information on patent family members

International Application No

PCT/US 01/07151

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/07151

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